

Amendment and Response Under 37 CFR 1.116

Applicant: Steven W. Trovinger

Serial No.: 10/621,438

Filed: July 18, 2003

Docket No.: 100110105-1/H304.208.101

Title: METHOD AND DEVICE FOR TRIMMING SHEET MATERIAL

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CENTRAL FAX CENTER****AUG 24 2006****REMARKS**

The following remarks are made in response to the Office Action mailed June 22, 2006, in which the rejection of claims 1, 7, 8, 10-12, 14, 15, 20 and 26 was made final. With this Response, claims 1, 8, 10, 12, 14 and 20 have been amended. Claims 1-5, 7-12, 14-17, 20-24 and 26 remain pending in the application.

Examiner Interview

On August 22, 2006, a telephone interview was conducted between Examiner Carolyn T. Blake and Applicant's representative Matthew B. McNutt. The discussion focused on the operation of the device of Malachowski et al. (U.S. Patent No. 5,219,159) and the operation of the device of the instant application. In particular, Applicant's representative explained that in Malachowski et al., rotation of the drive shafts that support rollers 24, 25, 26, 27 cause rotation of the rollers, but rotation of those drive shafts does not cause translation of the rollers, as is described and claimed in the instant application. The Examiner indicated understanding of the operation of the device of Malchowski et al., but suggested the wording of the claims was confusing or vague. No agreement was reached on the claims.

With this Response, the claims are amended to make clear that rotation of the drive shaft on which the rollers are mounted directly causes rotation of the rollers, and that rotation of the drive shaft on which the rollers are mounted directly causes translation of the rollers.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 7, 8, 10, 12, 20 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hill (U.S. Patent No. 5,397,106) in view of Malachowski et al. (U.S. Patent No. 5,219,159). The Office Action alleged Hill discloses a sheet material trimming apparatus (Fig. 1) comprising: a first cover (12') arranged to trim an edge (11) of a sheet material (1) in a first direction (shown by the arrows in the first step); and a second cutter (17') arranged to trim an edge (7) of a sheet material (1) in a second direction (shown the arrows in the second step) different from the first direction. The Office Action acknowledges that Hill fails to disclose a drive roller as claimed. The Office Action attempts to overcome the acknowledged deficiency of Hill by citing Malachowski et al. Malachowski et al. is alleged to disclose a

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drive system having a drive roller (24) for advancing sheet material (100) in first direction by rotation of the drive roller (24) and for translating the sheet material (100) in a second direction by a translation of the drive roller (24). (Referencing Figs. 1A-1C of Malachowski et al.). The Office Action alleges it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Malachowski et al. drive system as a station on the Hill apparatus prior to the cutting steps in Hill for the purpose of aligning sheets before cutting.

To establish a *prima facie* case of obviousness, three basic criteria must be met: (1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine reference teachings; (2) there must be reasonable expectation of success; and (3) the prior art references when combined must teach or suggest all the claim limitations. Applicant respectfully traverses the rejections, for at least the reason that the prior art references fail to teach or suggest all the claim limitations.

Independent claims 1, 12 and 20 have each been amended to clarify that rotation and translation of the drive roller are directly caused by rotation of the drive shaft. That is, rotation of the drive shaft directly causes the drive roller to rotate, and rotation of the drive shaft directly causes the drive roller to translate. No new matter has been added to the claims.

Applicants respectfully submit that the combination of Hill and Malachowski et al. cannot support a case of *prima facie* obviousness as to amended claims 1, 12 and 20 because, among other possible reasons, the combination of references fail to disclose all of the elements of the present invention. In particular, neither Hill nor Malachowski et al. teach or suggest wherein the drive roller is mounted on a drive shaft, and wherein rotation and translation of the drive roller are directly caused by rotation of the drive shaft.

As acknowledged in the Office Action, Hill fails to disclose a drive roller for advancing sheet material in the first direction by rotation of the drive roller and for translating the sheet material in the second direction by a translation of the drive roller. Hill must therefore also necessarily fail to disclose wherein the drive roller is mounted on a drive shaft, and wherein rotation and translation of the drive roller are both directly caused by rotation of the drive shaft.

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Malachowski et al. fails to overcome the deficiencies of Hill. Malachowski et al. teaches that rotation of the drive shaft only causes rotation the drive rollers mounted thereon. In particular, rollers 24, 25, 26, 27 of Malachowski et al. are each mounted on a respective shaft (unnumbered in the reference) such that rotation of the shaft causes rotation of the rollers mounted thereon. However, rotation of the shafts upon which rollers 24, 25, 26 27 are mounted does not cause translation of the rollers 24, 25, 26, 27. Rather, rollers 24, 25, 26, 27 are caused to translate by drive mechanism 120 which laterally translates the entire frame upon which rollers 24, 25, 26, 27 and their respective shafts are supported. Neither of the references teach or suggest that rotation of the drive shaft upon which the roller is mounted directly causes translation of the roller. Accordingly, because the prior art references, alone and in combination, fail to teach or suggest all of the claim limitations of independent claims 1, 12 and 20, withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

Dependent claims 7, 8, 10 and 26 depend, either directly or indirectly, from one of independent claims 1 and 20, which are allowable for at least the reasons set forth above. Dependent claims 8 and 10 have been amended to correct an error in dependency which resulted in improper antecedent basis. No new matter has been added to the claims. Accordingly, claims 7, 8, 10 and 26 are in allowable condition at least by reason of their dependency from an allowable claim.

In addition, Applicant submits the cited references fail to teach or suggest an engage mechanism as set forth in dependent claims 7 and 26. In particular, the references do not teach or suggest an engage mechanism having a first position and a second position, and wherein rotation of the drive shaft with the engage mechanism at the first position causes the drive roller to rotate, and rotation of the drive shaft with the engage mechanism at the second position causes the drive roller to translate.

For at least these reasons, withdrawal of the rejection of claims 7, 8, 10 and 26 under 35 U.S.C. §103(a) is respectfully requested.

Dependent claims 11, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hill (U.S. Patent No. 5,397,106) in view of Malachowski et al. (U.S. Patent No. 5,219,159) as applied to claims 1 and 12 above, and further in view of Kamprath et al. (U.S. Patent No. 5,278,624). The modified device of Hill is alleged to teach a device

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substantially as claimed, but is acknowledged as failing to disclose the drive shaft includes an external thread and the drive includes an internal thread. To overcome the acknowledged deficiency of the modified device of Hill, the Office Actions cite Kamprath et al. as disclosing a drive system for moving and aligning sheets comprising a drive shaft (48) with an external (52) and a drive roller (14) with an internal thread. The Office Action states that if unrestrained, the roller 14 would translate with rotation of shaft 48. However, with a holding or stopping mechanism, the roller 14 rotates in a single location. The Office Action concludes it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an external thread of the drive shaft and internal thread on the roller of the modified Hill device, as taught by Kamprath et al., and include appropriate stops for the purpose of better controlling rotational and translational movement of the roller.

Dependent claim 14 has been amended to correct provide correct antecedent basis in the claim. In particular, "engage means" has been changed to "engage mechanism" to conform to the wording of the remainder of the claim. No new matter has been added.

Dependent claim 11 depends directly from independent claim 1, which is allowable for at least the reasons set forth above. Kamprath et al. does not overcome the deficiencies of the modified Hill device, because Kamprath et al. teaches that rotation of the drive shaft acts to rotate the roller, but does not and cannot translate the roller due to the presence of fixed stops 62 (see column 4, lines 61-65). Further, in Kamprath, *translation* of the drive shaft (not rotation of the drive shaft) also acts to rotate the roller (see column 5, lines 8-10). Nowhere does Kamprath et al. teach that rotation and translation of the roller 14 are both directly caused by rotation of the drive shaft. For at least these reasons, claim 11 is also in allowable condition and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

Dependent claims 14 and 15 depend, either directly or indirectly, from independent claim 12, which is allowable for at least the reasons set forth above. Kamprath et al. does not overcome the deficiencies of the modified Hill device, for at least the reason that none of the references teach an engage mechanism having a first position and a second position, and wherein the rotation of the drive shaft with the engage mechanism at the first position causes the drive roller to rotate, and rotation of the drive shaft with the engage mechanism at the second position causes the drive roller to translate. Rather, as described above, the stops 62 of Kamprath et al. are fixed and do not have first and second positions allowing either

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rotation or translation of the roller 14. Further, the stops 62 of Kamprath et al. do not prevent rotation of the drive roller and in fact prevent translation of the drive roller. Accordingly, withdrawal of the rejection of claims 14 and 15 under 35 U.S.C. §103(a) is respectfully requested.

CONCLUSION

In view of the above, Applicant respectfully submits that claims 1, 7, 8, 10-12, 14, 15, 20 and 26 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1, 7, 8, 10-12, 14, 15, 20 and 26 is respectfully requested.

Any inquiry regarding this Response should be directed to either Matthew B. McNutt at Telephone No. (612) 767-2510, Facsimile No. (612) 573-2005, or Susan E. Heminger at Telephone No. (650) 236-2738, Facsimile No. (650) 852-8063. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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The undersigned hereby certifies that this paper or papers, as described herein, are being transmitted via facsimile to Facsimile No. (571) 273-8300 on this 24th day of August, 2006.

By: Matthew B. McNutt

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